Limited warranty

WHAT YOUR WARRANTY COVERS

This warranty extends only to the original user of the equipment (“you”, ”your”) and is limited to the purchase price of each part. Amphony and its affiliated companies (”we”, ”our”, ”us”) warrant this Wireless Transmitter / Amplifier Set against defects in materials or workmanship as follows.

LABOR: For a period of ninety (90) days from the original date of purchase, if we determine that the equipment is defective subject to the limitations of this warranty, we will replace it at no charge for labor. We warrant any such work done against defects in materials or workmanship for the remaining portion of the original warranty period.

PARTS: For a period of one (1) year from the original date of purchase, we will supply, at no charge, new or rebuilt replacement parts in exchange for parts we determine are defective subject to the limitations of this warranty. We warrant any such replacement parts against defects in materials or workmanship for the remaining portion of the original warranty period.
Note: ”Parts” means items included in this package. It does *not* include other parts purchased separately.

WHAT YOUR WARRANTY DOES NOT COVER

This warranty *does not cover* consumer instruction, physical setup or adjustment of any consumer electronic equipment, or signal transmission problems.

This warranty *does not cover* cosmetic damage, damage due to the affixing of any attachment not provided with the product, loss of parts, connecting the product to any but the specified receptacles, lightning, electrical surges, fire, flood, or other acts of God, accident, misuse, abuse, repair or alteration by other than authorized service personnel, negligence, commercial or institutional use, or improper or neglected maintenance.

This warranty *does not cover* equipment sold AS IS or WITH ALL FAULTS, equipment removal or reinstallation, shipping damage if the equipment was not packed and shipped in the manner we prescribe, nor equipment purchased, serviced, or operated outside the contiguous United States of America.

LEGAL LIMITATIONS

REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY. WE SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY ON THIS EQUIPMENT, NOR FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF, OR INABILITY TO USE, THIS EQUIPMENT. UNDER NO CIRCUMSTANCES SHALL OUR LIABILITY, IF ANY, EXCEED THE PURCHASE PRICE PAID FOR THIS EQUIPMENT, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. EXCEPT AS PROVIDED HEREIN, WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WE RESERVE THE RIGHT TO REFUSE TO HONOR THIS WARRANTY IF WE DETERMINE ANY OF THE ABOVE EXCEPTIONS TO HAVE CAUSED THIS EQUIPMENT NOT TO HAVE PERFORMED PROPERLY. THIS WARRANTY SHALL BE VOID IF ANY FACTORY-APPLIED IDENTIFICATION MARK, INCLUDING BUT NOT LIMITED TO SERIAL NUMBERS AND WARRANTY LABELS, HAS BEEN ALTERED OR REMOVED. THIS WARRANTY SHALL ALSO BE VOID IF THE TRANSMITTER OR AMPLIFIER HAVE BEEN OPENED BY AN UNAUTHORIZED PERSON.

This warranty gives you specific legal rights which may vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on the duration of an implied warranty, so those limitations may not apply to you.

Note: No responsibility is assumed for the presence of interference outside of Amphony’s control, such as other transmitters or cordless phones, which may hamper proper signal reception.

User and Installation Guide

5.8 GHz DIGITAL Wireless

Audio Transmitter / Amplifier

Model 1520

Amphony®

Unpacking: Check that this package contains:

One 5.8 GHz Digital Audio transmitter - Model 1520, one Digital Audio amplifier - Model 1520, one small and one large AC adapter (wallwart), two short speaker cables, one RCA audio cable.

Step 1 Connecting the transmitter

The transmitter connects either to a standard line-out audio interface via the supplied RCA cable or to an amplified speaker output via the supplied short speaker cables.

If the transmitter is connected via speaker cables, observe the polarity of the cable connection to ensure that the transmitter will be fed with a correct polarity signal. If one of the cables is switched (reversed), one speaker will receive an opposite polarity signal which will degrade sound performance.

The transmitter can also be connected to other audio outputs by using an appropriate adapter.

Connect the supplied small AC adapter's barrel-shaped plug into the DC 9V jack, and then plug the transformer into a standard AC outlet. We recommend the use of a surge protector to protect the transmitter from power surges.

ATTENTION!

Do not use both the speaker cables and RCA cable. Do not connect speakers to the transmitter. Do not connect the large AC adapter to the transmitter.

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All product names, trade names, or corporate names mentioned in this document are acknowledged to be the proprietary property of the registered owners.

FCC ID PMJT1500
This device complies with part 15 of the FCC Rules. Operation is subjected to the following two conditions: 1) This device may not cause harmful interference and 2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT SAFETY INFORMATION

ATTENTION!

READ THESE SAFETY INSTRUCTIONS CAREFULLY AND HEED ALL WARNINGS IN THIS MANUAL.

POWER SOURCE
To avoid product malfunction, and to protect against electric shock, fire or personal injury, please observe the following:
- This product has been designed to work with 120-volt AC current using the supplied AC adapters. Connection to a line voltage other than that or use of non-compatible AC adapters may create a safety and fire hazard and may damage the product.
- Do not run power cords under rugs or carpets or place heavy objects on them.
- Damaged or deformed power cords are hazardous and should be replaced immediately by a qualified service technician.

LOCATION
- Do not use this product outdoors or in cars.
- Air vents are provided at the bottom of the amplifier to prevent excessive temperatures inside the unit. Do not place the amplifier in closed spaces, cover it, or otherwise block the vents.
- Do not place this product in direct sunlight, or near heat sources.
- Keep this product away from strong magnetic objects.

VOLUME CONTROL
- Do not turn up the volume while listening to a portion with very low level input or no audio signal to avoid damage to your speakers during a peak level audio portion.
- Turn the amplifier volume control to minimum prior to connecting or disconnecting the transmitter or amplifier and prior to switching audio sources as this may cause loud clicks which can damage your speakers.

CARE
- Do not insert or drop anything into the amplifier through the air vents as this could cause serious damage, possibly resulting in fire.
- Do not place any object containing water or other liquids on this product.
- Do not remove the cabinet. Touching parts inside the cabinet could result in electric shock and damage to the product.

NON-USE PERIODS
- When the product is not being used for a long period of time, unplug the product.

CLEANING
- Unplug the product before cleaning.
- When the system gets dirty, wipe it with a clean, soft cloth. If necessary, wipe it with a soft cloth, slightly dampened with soapy water. Wipe dry immediately with a dry cloth.
- Never use benzene, aerosol cleaners, thinner, alcohol or any volatile cleaning agent.
- Do not use abrasive cleaners, as they may damage the finish.

SERVICE
- Do not open the cabinet of any components. Opening the cabinets may present a shock hazard, and any modification to this product will void your warranty.
- Do not attempt to service the unit yourself. If liquid or any metal objects such as paper clips, wire or staples accidentally fall inside, disconnect the product from the power source immediately, and consult an authorized service center.
- Please refer any service to an authorized Amphony service center.

Technical Specifications

Transmitter:

Audio transmission method: Digital

Transmitter frequency: 5.8 GHz

Signal-to-noise ratio (A-weighted): typ. 92 dB

Dynamic range: typ. 92 dB

Error correction: 1/2 rate FEC

Audio sampling method: 64 times oversampling

Transmitted data rate: > 3 Mbps

Transmitter operating range:
max. 50 ft. line of sight, max. 20 ft. through walls and ceilings

Automatic transmitter power down feature

Amplifier:

Peak output power: 2 * 20 W (2 * 8 W rms)

Frequency response: 20 Hz … 23 kHz @ 8 Ohms

Total harmonic distortion: typ. 0.03 % (-70 dB) @ 10 W, 4 Ohms

Overall audio latency: < 1 ms

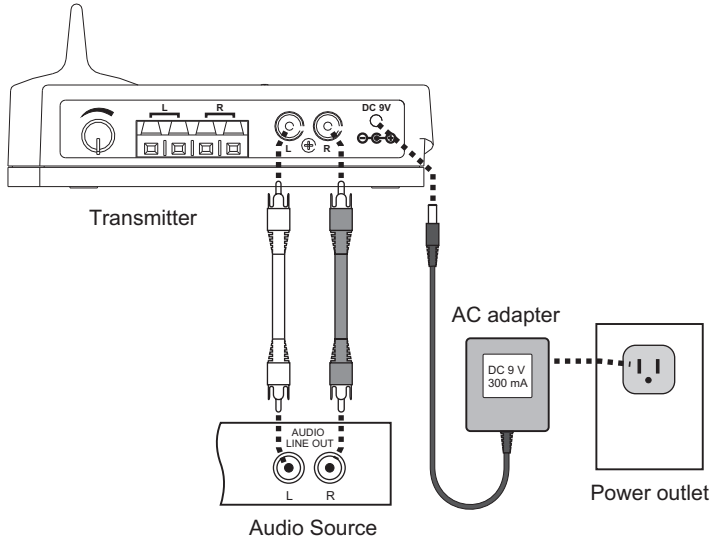
Power efficiency: typ. 75 % @ 10 W, 4 Ohms

Channel separation: typ. 75 dB

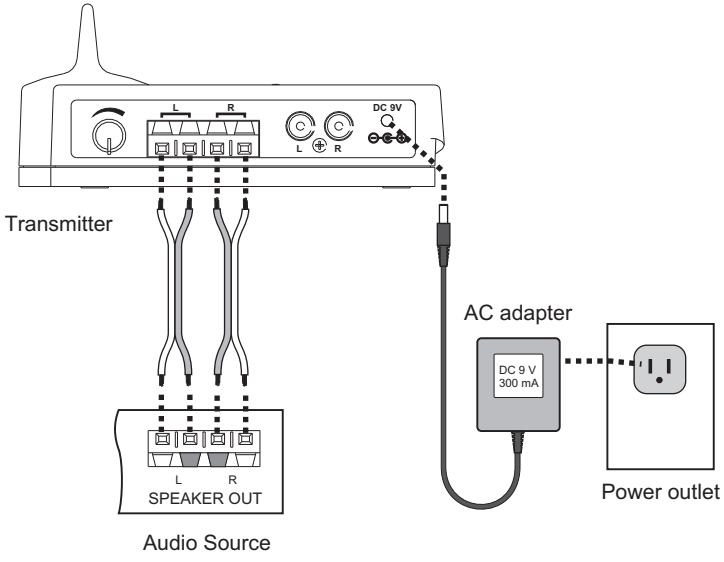
Noise shaping filter for maximum signal-to-noise ratio

Automatic amplifier power down feature

Using the transmitter RCA audio input:



Using the transmitter speaker audio input:



Step 2 Connecting the amplifier

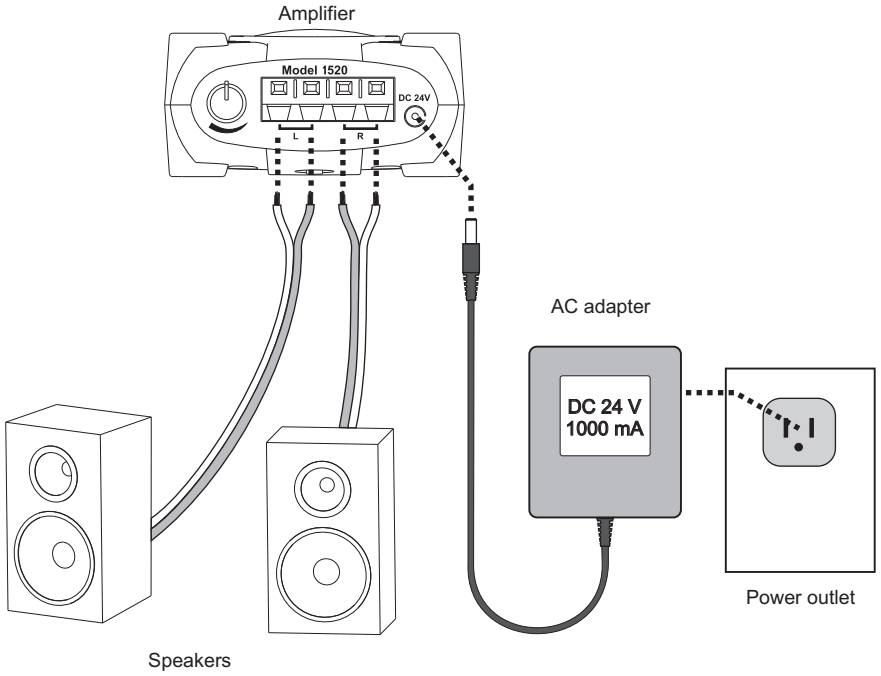
Connect the DC power input of the amplifier with the supplied large 24 V AC adapter (wallwart). The use of a surge protector is recommended to protect the amplifier from power surges which may damage the amplifier and connected speakers or may cause audio dropouts.

The amplifier connects to regular passive loudspeakers via regular speaker cables (not included). Observe the correct polarity when connecting the speakers.

It is also possible to connect both speakers to separate amplifiers by using an additional amplifier. In this case connect one speaker to the left audio output of the first amplifier and the second speaker to the right audio output of the second amplifier. One audio output of each amplifier will not be used in this case.

ATTENTION!

Never short circuit any amplifier audio output since this may damage the amplifier. A clicking noise may be generated during amplifier power up. Therefore, it is recommended to connect power to the amplifier prior to connecting the speakers.



Problem	Possible Cause	Solution
Audio drops out intermittently or crackles	Strong interference	In some cases, there may be strong interference preventing proper reception of the audio signal which can be caused by 5.8 GHz cordless telephones or 5.8 GHz wireless networks. Either eliminate the interference, locate the base unit of the cordless phone in another room, set the wireless network to use the 5.1 GHz frequency band rather than 5.8 GHz, relocate the transmitter, relocate or reorient the amplifier, or use a model 1550 transmitter to improve reception.
	Unstable power supply	Ensure that the power outlet delivers a stable voltage. Very strong surges or voltage fluctuations may cause audio dropouts. Try using a surge protector.
Audio is noisy	Strong interference	See under “Strong Interference“ above.
	Transmitter volume control set too low	Adjust the transmitter volume control.
	Audio signal too weak	See under “Audio signal too weak“ on previous page.
Transmitter range is extremely short	Strong interference	See under “Strong Interference“ above.
	Too many obstacles	Audio will drop out if there are too many obstacles between the transmitter and the amplifier (see page 4), try relocating the amplifier or transmitter to improve reception or use a model 1550 transmitter.

For more information, including a detailed troubleshooting guide, visit the Amphony web site at: www.amphony.com

Troubleshooting

Problem	Possible Cause	Solution
The transmit light does not go on after DC power is applied to the transmitter	Faulty AC adapter or faulty power outlet	Check the power outlet and the AC adapter; if possible, check for correct voltage of the AC adapter.
The transmit light goes out after a few seconds and does not light again	No audio present at audio input	Check the audio connection to the transmitter and ensure that there is audio present.
	Transmitter hung up	Disconnect and then reconnect DC power.
No audio at amplifier	Faulty AC adapter or faulty power outlet	See under “Faulty AC adapter or faulty power outlet“ above.
	Transmitter volume control set too low	Adjust the transmitter volume control.
	Amplifier volume control set too low	Adjust the amplifier volume control.
	Strong interference	See under “Strong Interference“ on next page.
Audio is distorted	Transmitter volume control set too high	Adjust the transmitter volume control until clipping stops.
	Amplifier volume control set too high	Adjust the amplifier volume control until clipping stops.
	Strong interference	See under “Strong Interference“ on next page.
Speaker audio level is too low	Transmitter volume control set too low	Adjust the transmitter volume control to achieve desired audio level.
	Amplifier volume control set too low	Adjust the amplifier volume control to achieve desired audio level.
	Audio signal too weak	Increase the output level of the audio source (connect transmitter to an adjustable output by using an adapter if necessary).

Step 3 Placing the transmitter and amplifier

For optimum reception, the amplifier should be placed within the line of sight from the transmitter. If possible, the amplifier should be placed right side up with its front toward the transmitter.

The transmitter should be placed at an elevation such that there are no obstacles between the transmitter and amplifier (line of sight) in an area where there will be the least amount of traffic. We suggest that you place the transmitter on top of your audio source. Example 1 below shows the optimum placement of the transmitter and amplifier.

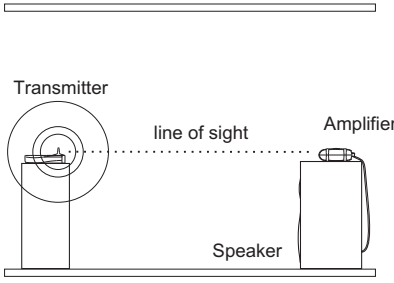
The amplifier can also be placed as shown in example 2. In this case, no line of sight exists and the operating range is reduced.

You can mount the amplifier vertically by using the 2 screw openings at the bottom of the amplifier. If the amplifier is mounted vertically, the operating range is reduced compared to mounting the amplifier right side up.

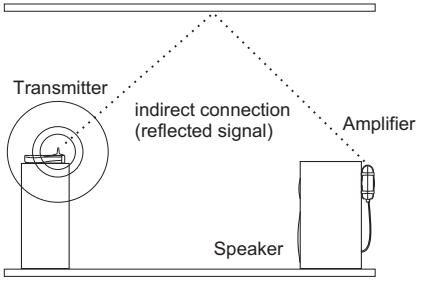
The amplifier incorporates a directional antenna which prefers signals transmitted toward the front of the amplifier. Therefore, the front of the amplifier should always be facing toward the direction of the strongest transmitter signal. By properly orienting the amplifier, interference from other signal sources can be minimized.

We suggest that you experiment with placement in order to find the best location for the transmitter and amplifiers.

Note: This product will not work properly from within an enclosed metal cabinet.



Example 1: Amplifier placed on top of a speaker



Example 2: Amplifier mounted vertically behind a speaker

Step 4 Operating the transmitter

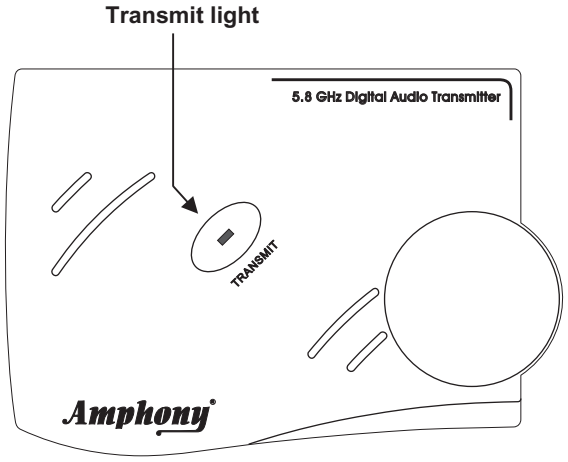
After powering up the transmitter, the transmit light will go on for approximately five seconds while the transmitter initializes.

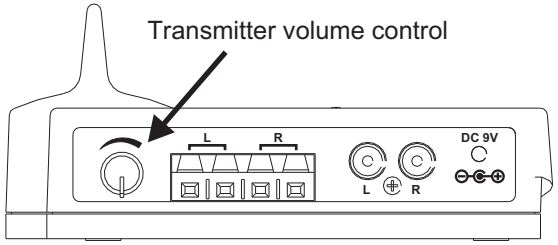
After initialization, the transmit light will go out.

Initially, set the transmitter volume control to a middle setting.

Once audio is detected at the audio input, the transmit light will go on and the transmitter will transmit the audio signal.

When audio is no longer detected, the transmitter will go into standby mode after approximately one minute. The transmit light will go out. During standby mode, no signal is transmitted.





Step 5 Operating the amplifier

As soon as a valid transmitter signal is received by the amplifier, the amplifier will output the amplified audio signal to the speaker outputs. You can change the audio level by adjusting the amplifier volume control.

In order to achieve maximum transmission quality, the transmitter volume control should be set to match the audio level of your audio source as follows:

1) Set the amplifier volume control to a low level to prevent clipping inside the amplifier.

2) Set your audio source to output the maximum audio level that you will encounter during normal operation.

3) Turn the transmitter level control knob to the position that yields maximum audio loudness to the speakers without any clipping (distortion). If the transmitter level is set too low, the dynamics of the transmission are not fully used. If the level is set too high, audio clipping (distortion) will occur inside the transmitter.

4) Turn the amplifier volume control to a setting that yields the desired volume from the speakers.

If no audio signal is received for more than 2 minutes, the amplifier will go into standby mode (power-down mode).